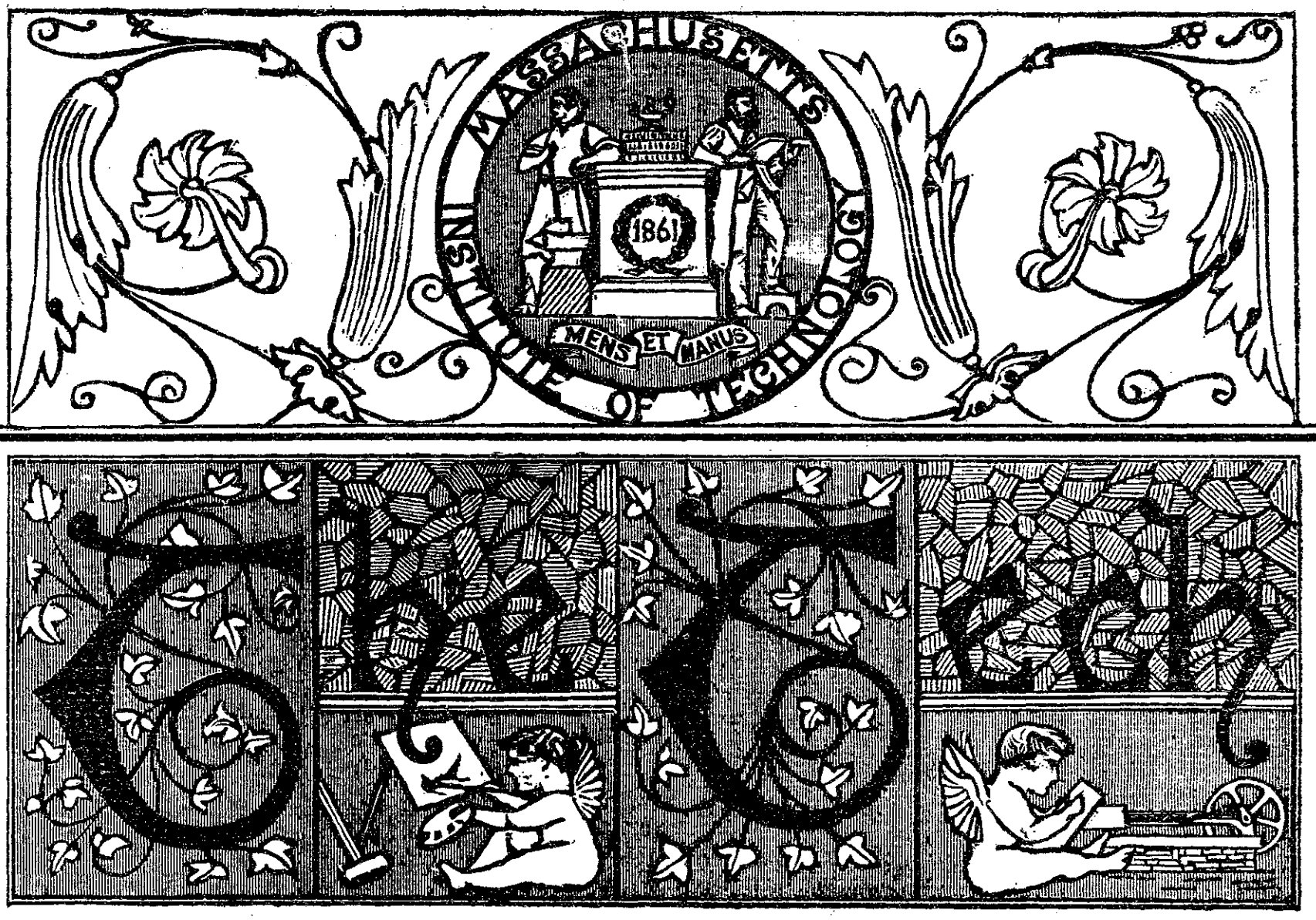


DEC. 3,
1884.
Vol. IV. No. 4.

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The Tech.

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THE TECH.

Published on alternate Wednesdays, during the school year, by the students of the Massachusetts Institute of Technology.

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LIFE at the Institute is, at all times, a very busy one, and undoubtedly its most trying periods are the few weeks during and immediately preceding the semi annual and annual examinations when, after months of close application to work, the student finds himself called upon to exert his most energetic efforts. The anxiety of such times is especially great in the case of subjects which, from their nature or from the preference of the instructor, are considered by means of lectures, without recitations or written exercises; for the student, realizing that by the result of the examination alone will his proficiency in these subjects be judged, feels compelled to crowd into a few hours their careful review, amounting, in many instances, to almost a second course of preparation.

There is no use in upholding the highly impracticable theory that each lesson should be so thoroughly prepared as to require only the most hasty review; for it is not by the first reading of a difficult line of study, but by a review, after a consideration of the whole subject, that the connection and relative importance of the details of each day's work can be grasped. Nor would it be at all advisable for instructors in certain branches of study to substitute for lecturing, with its opportunities for collecting and presenting to classes the best information from many sources, the limitations of text-book study and recitations. But, without advocating either of these plans, there still remains a way by which the anxiety in regard to approaching final examinations, and the consequent overwork of preparation, could be greatly lessened; and that is by the more general adoption of a system of intermediate examinations, held in place of occasional lectures and without previous warning. By their means, the progress made by a student would be better known to himself and to his instructor, and their results, with any records which might be kept of recitations, should be of as much importance in determining his standing as the results of the final examinations.

This plan is carried out in some studies of the first and second years, but is almost entirely lacking in the third and fourth years, where it would seem to be just as much needed. It must secure less variation in the amount of work done by those who, from exceptional ability or from aversion to continuous study, leave their preparation until required by an approaching examination; increased fairness in the standing of those who are conscientious in every-day work; and fairness, also, to those who are not, like others of no greater proficiency, enabled, by the mental excitement of a final examination, to do better than in recitations. Such a system avoids the evident injustice of judging a student's knowledge of a subject entirely by his answers to a few questions, which, however well they may cover the work, cannot be thoroughly comprehensive, and may, as chance decides, be very familiar or comparatively strange to him.

LATELY, public opinion has been directed so strongly against "rushing" and other forms of "hazing" that they are gradually disappearing from the larger and better regulated American colleges. Not only college papers but outside papers have taken up the subject and tried to crush out these practices. THE TECH, in the first issue of this year, gave briefly its views on the subject, and asked the students to suppress any desires for a scrimmage before they ripened into a "regulation rush." This would have brought forth comments from the press, such as those which the *Engineering and Mining Journal* made in an article about the Columbia-School-of-Mines rush.

The article, though very galling, was reasonable, except in the application of hard names, and was worth consideration, as being the opinion of the leading engineering paper in this country. The piece was headed "Scientific Hoodlums." It says that "the pranks of 'college boys' are viewed with comparative lenity, because they have not yet developed a manly character, or decided upon a manly purpose or career in life; but the case is different in technical schools; the young men have chosen their vocation and addressed themselves earnestly to their life's work. They are allowed more liberty in many respects than academic students, and if they descend to imitate the 'follies and brutalities' of 'college boys' they should not be so easily excused. . . . These observations are called for by the recent events at the Columbia School of Mines, where the undergraduates are indulging in tearing one another's clothes, punching one another's ribs, hooting, cat-calling, and hurrahing for '87 or '88. . . . Is it likely that business men will trust them to-morrow, if to-day half of them ought to be spanked and put to bed, and the other half clapped into the Tombs? . . . The fools in the School of Mines are picking up the cast-off toggery that Harvard, Amherst, Williams, Yale and Cornell have — some of them completely, and all of them to some extent — outgrown."

This article was ably answered by one of the Senior Class of the School of Mines, and it was plainly evident that the reputation of the whole school was made to suffer by the misdirected "class feeling" of a few students, who were in for a good time, and did not think of the consequences to themselves or others.

As the Institute has always had a good reputation, let us not throw it away; but let all the spare "rush energy" be directed to foot-ball, base-ball, and other legitimate athletics, which are at present somewhat in need of energy.

AT the request of Gen. Eaton, United States Commissioner of Education, and of the Massachusetts Board of Education, the Institute of Technology will send to New Orleans an exhibit showing its methods of instruction and their results. The limited time allowed for the preparation of the exhibit, and the nature of the work in different departments of the Institute have prevented a complete representation of all the courses of instruction. There will be sent thesis and other designs and drawings, architectural, mechanical, topographical, etc., mainly from the engineering courses and the course of architecture, either in the original or in blue print; specimens of work from the School of Mechanic Arts and the Lowell School of Practical Design; manuscripts describing the system by means of which Institute students receive their preparation for beginning professional work; and photographs of the shops, laboratories, drawing-rooms, and other features connected with the school.

WE desire to say a word in regard to the cuts which find a place in our pages.

We believe that there is sufficient talent in this direction, in the Institute, to make this department a success, and, to that end, we urge every man who can draw to contribute early and often, even though his first attempt may not have been deemed suitable for publication. A number of drawings have been returned, either because not drawn in black ink, or for a lack of sufficient care in their execution. All drawings must be in India-ink, on smooth surface paper, and they must be carefully executed.

Contributors will please place their drawings in THE TECH box, addressed to Mr. F. M. Wakefield, who will be glad to give information on certain other details which must be attended to in order that the drawings may be successfully photographed and electrotyped.

THE rumor that the Glee Club is to form an associate membership this year is confirmed. A committee has been appointed to arrange the preliminaries, and its action approved by the Club. One member from each of the classes and one from the club at large compose the committee, and within a few days each member will endeavor to see his classmates, in order to get the names of those who wish to become associates. Already a number have signified their desire to establish such a connection with the Club, and the movement has met with general approval and encouragement. Associate membership will insure tickets to each of the two concerts of the year, and to a party which will be given under the auspices of the Glee Club.

Dizzy's Beau.

DIZZY was a permanency; that is, we all thought so until — but I will not anticipate.

Not that her name was Dizzy, either. She was christened Aphrodisia.

Nor can her beau be called such with perfect accuracy; for — but all in due time.

It is enough to say of Dizzy that she had been in our family much longer than I can remember. She made herself generally useful and agreeable about the house. She sewed on our buttons for us; she mended our stockings; she concocted the dessert when the cook was sick; she dusted the parlor when the maid had departed in a cloud of angry smoke; she packed us boys off to school, and smuggled out of the storeroom pots of jam for our secret delectation. In a word, Dizzy may be said to have been a brick; and, to make the comparison still more apparent, she had red hair.

Now, though it may be egotistical to say so, it was, it must be owned, very natural that while we boys were at home, running in from morning to night on one errand (not of mercy) or another, tearing our trousers on nails, tumbling out of apple-trees, getting black eyes, wearing out or breaking everything that came into least intimate contact with us, and, above all, perennially hungry, — while all this went on, it was natural, I say, that Dizzy's whole heart and time should be occupied in attending to our wants. But when the years took away Frank into another nest, which he had feathered for himself, and when James went out West to do his best to feather a nest for himself, and when I entered college, to prepare for the feathering of still another little nest for myself, I suppose, — we all come to it, — when the old house was left empty of its noise and cares, it might have been expected that Dizzy's heart would be on the lookout for another situation; for hearts seem not to like sinecures. Dizzy's heart needed love to swim in as much as a duck needs water; and, like a duck, also, the good creature could pick up a very good living out of the dregs of a very muddy pond.

In view of these facts, it need have surprised no one in the least when Dizzy one day brought home an object to love. No one ever knew where she had found him, — she was always singularly reticent about the matter. But beau she now most certainly had, and a very positive, assertive beau at that.

When I first saw the man Dizzy had singled from the world to be her companion, he was the most disreputable human being, in appearance, that I have ever seen. At that time, matters had been going on for several months, and it is hard for me to conceive what an appearance he must have presented before Dizzy's ameliorating influence had begun to achieve results. When my mother first caught sight of him, she absolutely refused him admittance to the house; and though she soon repealed this hasty law, the fact of her at first refusing him access to Dizzy in her house conveys to those who are acquainted with my mother's lenient spirit a most horribly dilapidated picture of the beau.

Dizzy, however, in the face of obstacles, did not cease to meet her beau openly and honestly, as she did everything. Every Sunday morning she was escorted to church by her lover, when he would strut up the street, ring the door-bell and walk off with Dizzy on his arm. It was a fine sight to see the two, — Dizzy the very acme of respectability, her beau in every respect the opposite. His shoes flapped from his heels as he walked, displaying not, as a general thing, stockings, but their absence. A deep worn fringe at the bottom of his trousers enhanced the effect. Himself the smallest of men, he wore a threadbare frockcoat that must have been cut for a giant. Upon the expansive shoulders was dust of various and peculiar kinds, — hay-seed and sawdust, flour and street dust lay there in picturesquely irregular masses.

Yet there was a something about the man very aggressively prepossessing. One shook his dirty hand with a surety that it was clean. From his walk, one knew in a moment that he had an immense self-respect. In his bleared eyes shone an unmistakably honest and pure light. His mouth, sadly encroached upon by wrinkles, and overhung by a scraggly, stiff mustache, that looked as if it had been gnawed by rats, nevertheless told a very pleasant story of sensibility and tender good-nature.

Dizzy's beau had one failing, like other great men before him. A sign in a saloon window possessed an irresistible seductiveness for him. Once within the door and all was lost. Ten to one the old fellow awoke in the morning in the lock-up. A short visit to the Island — merely a little social duty — ended the escapade, and, wretcheder than ever, the poor fellow was at liberty until the next time.

Anxious to see if there were any hopes of his making a passable husband for Dizzy, as husbands go, I got an introduction to him. To my surprise, I found him a man of no little cultivation; conversant with more than one language, he had acquired familiarity with literature, with art, with science; and his acquaintance with a number of prominent history makers enabled him to charm me with anecdote and description. It occurred to me that perhaps he won Dizzy's heart as Othello won Desdemona's.

The happiness of the ever-happy couple was consummated several years ago, at their marriage; and ever since that time the happiness has apparently never descended from that highest point. I never saw another couple so bound up in each other. Dizzy's face wears a continual smile, perhaps of habit, but partly, I am sure, of contentment. As the years go by, her husband's clothes grow less shabby, and more approximately a fit. His rough, seared countenance grows milder and healthier. His harsh mustache long ago became perfectly amenable to the softening influence to which, I suspect, it is pretty often subjected.

Blue Hill Observatory.

TO THE EDITOR OF THE TECH:

You ask for an account of the work which I am doing on Blue Hill, which you say you have seen referred to in the daily papers. As these notices have been premature and ridiculous, I cannot do better than to send you, for publication in THE TECH, the substance of a paper read by me at the first meeting of the New England Meteorological Society, recently held in this city.

Very truly yours,

A. LAWRENCE ROTCH.

BOSTON, NOV. 28, 1884.

The Blue Hills, situated in Norfolk County, Mass., are the nearest of the mountain ranges to Boston. Though the hills are not in reality high, the fact that the surrounding country is low makes the range count for its full height. Great Blue Hill, the highest of the range, has an elevation of six hundred and thirty-five feet, and is not only the highest land in Eastern Massachusetts, but is also the highest land on the Atlantic coast from Maine to Georgia. As Great Blue Hill exceeds the other hills in elevation by more than one hundred feet, it possesses the characteristics of an isolated peak, commanding an unbroken view of the horizon and sky within a radius of twenty-five miles. These fea-

tures render it valuable as a site for a meteorological station for the investigation of the amount of rainfall at this elevation, the velocity and direction of the wind, the maximum and minimum temperatures, the paths of thunder and other local storms, and such other phenomena as may suggest themselves. It is thought that atmospheric electricity could well be studied here; and for seismometric apparatus the situation of this station would secure absolute freedom from the jar and vibration incident to the passage of neighboring trains and vehicles.

The hill is easily accessible, as from Readville, reached by both the Boston and Providence and New York and New England Railroads in half an hour from town, it is only a mile and a half to the base of the hill, whence I have made a carriage road three quarters of a mile long to the summit. This road is a prolongation of the Brush Hill Road, and follows the line of the old path. It has an average grade of about one foot in ten. The top of the hill comprises several acres of partly cleared land. Rising fifteen or twenty feet above the general level of the ground is a rocky ledge, and here, on the boundary line of the towns of Milton and Canton, I am erecting a one-story stone building, about twenty by thirty-five feet in size, containing five rooms. Attached, is a two-story stone tower, sixteen feet in diameter and about twenty-five feet high, designed to contain the instruments. A wooden shed adjoins the main building. The tower occupies the site of a lookout or observatory erected nearly one hundred years ago, and also covers the supposed site of the copper bolt located by Simeon Borden for the State Survey some fifty years since.

There being no water on the summit, reliance will be placed on a cistern to collect the rain from the roof of the building. The latter will be securely anchored, will have double windows, and be heated by stoves, and by these means, it is hoped, can be kept comfortable during the winter. It is proposed to connect this station by telephone with the Signal Station in Boston, which is distant ten and a half miles in an air line. So far as possible, the station is to be equipped with self-recording instruments. Two of Dr. Draper's instruments, an anemometer and anemoscope for registering continuously the velocity and direction of the wind, are now in process of construction, and it is probable that a modification of the ingenious, self-recording rain gauge designed by Mr. Desmond Fitz Gerald, of the Boston Water Works, and in use at the Chestnut Hill Reservoir, will be adopted at Blue Hill. It is intended to have connected with this station two observers, besides a cook or steward.

The building is already roofed in, and it is expected to be ready for occupancy early in 1885. It should be stated, that, while the enterprise is a private one, it has the approval of the Council of the New England Meteorological Society, of which Prof William H. Niles is the president, and the results of the observations will probably be published in the monthly bulletin to be issued by this society.

"We Draw the Line at That."

"DO you know whether the statement which appeared in No. 2 to the effect that the Freshmen were to subscribe in a body to THE TECH has any foundation?" asked a director of THE TECH of a youth, who, by his intellectual, haughty look, betrayed his standing. With a supercilious air, the aforesaid youth turned his back on his questioner, and murmured, "What ignorance!" Soon he took pity on the crushed director, and enlightened him after this manner: "Do you think we have not realized the support we owe THE TECH? Why, we have canvassed the class for subscriptions, and almost every man has responded. We shall subscribe for three copies to be passed around, giving each member of the class a chance to enjoy their pages." Then the Fresh resumed his cigarettes, and beamed on the passer-by with a benignant smile, happy in the possession of such a generous spirit, while the director hastened upstairs and set the editors at work on a competitive editorial on the subject, "The Support due THE TECH." O.

Foot-Ball.

On Saturday, Nov. 22, the team from Tufts College came over to the Union Grounds to play a second game with the Techs. There was difficulty in deciding upon the referee, the Tufts team insisting upon their man, and Capt. Fletcher finally agreed, but with the condition that, after three exceptions to his rulings had been taken, a new man should be appointed.

In the first ten minutes of the game the referee made three rulings, manifestly unfair. By one of them a touchdown was given to Tufts when the ball was some five feet from the line. The Techs protested, and a new referee was selected; but not until the Tufts team had unfairly made eight points by the first one. The Techs continued the game in order to save the gate receipts, but were discouraged by the lead against them, and played in a listless and careless manner. They tackled too high, and ran and threw the ball poorly. The Techs played with three substitutes, and had not practised together since the last game with Harvard. It is needless to say that Tufts won.

The foot-ball season is now practically over. This year has shown a great increase in the interest given to the game. Teams, outside of the colleges, have been formed, and have been very successful. The year has been one of large scores. Yale defeated Stevens, 96 to 0; and Dartmouth, 113 to 0. Princeton defeated Lafayette, 140 to 0, and holds the record.

The games in the Inter-collegiate Association have had the following result: Princeton, 34, Harvard 6; Yale 52, Harvard 0. The Yale-Princeton game of Thanksgiving day was to decide the championship. In the first inning, Yale made a touchdown, from which a goal was kicked; and Princeton also made a touchdown, but failed for a goal. After this, neither side scored. The game was exceedingly rough, and the frequent injuries to the players caused many delays, so that the referee finally had to call time when five minutes of the second inning still remained, the score standing 6 to 4 in favor of Yale. The referee, Mr. Appleton of Harvard, decided the game to be a draw on this technicality. On the following day a special meeting of the Inter-collegiate Association was held around the bedside of Capt. Richards of Yale, who was severely hurt during the game. The Harvard delegates refused to vote, and the decision of the referee was ratified by the meeting.

Columbia has dropped from the Inter-collegiate Association altogether, and it is a question whether foot-ball shall not be abandoned entirely by the students at that college.

Outside of the association, the eleven from the University of Pennsylvania has shown itself to be the strongest, by its defeat of Wesleyan on Thanksgiving day. Wesleyan is a good fourth.

The four points by Princeton and ten by Rutgers have been the only points scored against Yale this season.

Devised Anecdote.

(Adapted for Sophomores, from the German.)

A Hungry Wolf once met a Roast Turkey. "Have Pity on me," said the trembling Turkey, "I am a poor, sick Fowl. Only see the cruel Skewer which I all through me stuck have!" "You move me," said the Wolf, tenderly; "really, I by a two Months' Sojourn at a Boarding-House you from your Smarts to free amply qualified am." Hardly was the Word said, so was the Turkey devoured; but, in his haste, the Wolf the Skewer to remove forgotten having, he with him to School a severe wooden Indigestion back took.

A Word to the Wise Sufficient Is.

THE TECH will, in future, be delivered from the analytical laboratory, to accommodate students in the new building.

The last number of the *Boston Journal of Commerce* contains nearly half a column of Technology Notes, including an editorial from No. 3 of THE TECH, concerning the Chinese students. We hope that other Boston papers will publish such notes, and shall consider that our plea in behalf or the Institute was not in vain.

Report of Committee on Torchlight.

M. I. T., Nov. 26, 1884.

The financial report of the committee is as follows: —

EXPENSES.

Uniforms	$289 83
Boston Cadet Band	156 00
Torches and lanterns	66 13
Transparencies	22 00
Cots and mattresses	8 00
Head for bass-drum	5 50
Oil	5 38
Fire-works	10 00
Express	75
Incidentals	1 88
Total	$565 47

RECEIPTS.

Uniforms and torches	$519 95
Officers' lanterns	9 78
Uniforms left over	3 00
Torches left over	1 00
Total	$533 73

It will be seen from the above figures that there is still a debt of $31.74. This deficit is caused by the non-payment of assessments by quite a number of men who agreed to turn out, and, in consequence, had uniforms ordered for them, but who have not been heard from. It is to be hoped that all such men will immediately pay their assessments, and that the remaining deficit will be made up by subscriptions from the students, thus relieving the committee of the embarrassment of supplying the deficiency from their own pockets, after having devoted much valuable time and energy to the project. The deficiency has now been apportioned equally among the members of the committee, each member holding himself responsible for his portion.

S. WILLIAMS,
Treasurer Committee.

BOSTON, Dec. 1, 1884.

In the report of the last athletic games, the name of Mr. W. A. Davis, U. A. A C., one of the judges, was inadvertently omitted.

Noticeable Articles.

EACH of the three English quarterlies has, in its October issue, an article on the burning political question of the day in England, — the House of Lords and the Franchise Bill, — the *Quarterly* treating it from the Tory, the *Edinburgh* from the Moderate Liberal, and the *Westminster* from the Radical point of view. The *Quarterly* takes a Tory view of the "Nature of Democracy," and has articles on Aristophanes, on "France under Richelieu," and, what will perhaps be of more interest to readers of THE TECH, a paper on "Cricket."

The *Edinburgh* has a paper on the poet Pope, *apropos* of the sumptuous, complete edition of his works which has been so many years coming out. Both the *Edinburgh* and the *Quarterly* have papers on the great Dutch statesman, John De Witt, who, with his brother, was killed in a popular outbreak in 1672, and two new lives of whom have just been written, — one in French by Pontalis, and one in English by Geddes. Both the *Quarterly* and *Blackwood* have papers on the just published Memoir and Diary of the old Tory politician, Wilson Croker, whom Macaulay hated so bitterly, and whose edition of Boswell's Johnson Macaulay endeavored in vain to discredit.

Blackwood, which is nothing if not bitterly Tory, has a rhymed attack on Mr. Gladstone, entitled "Our William," and ending thus: —

> "How, then, is England to get out
> Of all her ills, within, without?
> By sending to the rightabout,
> Our William."

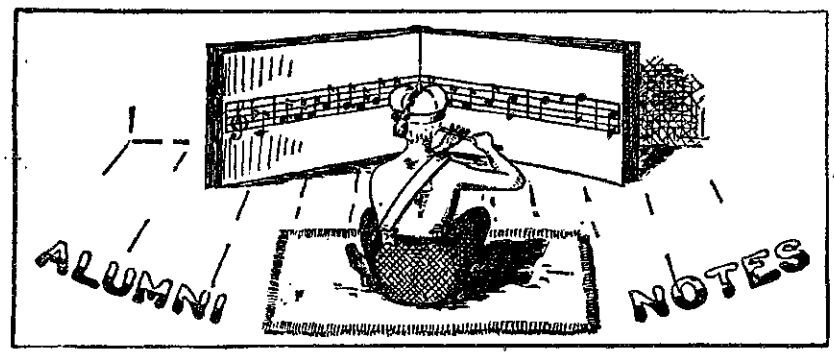
Blackwood has also a pleasant paper, entitled "Three Glimpses of a New England Village." The village is Northampton, and the materials for the second glimpse are taken from the privately printed volume of correspondence of the late venerable Mrs. Lyman, the widow of Judge Lyman.

The *Westminster* has a paper on Mr. Howells's novels.

The *Century* for December is, as it always is, full of admirable illustrations. The frontispiece is a profile portrait of Gen. Grant, and the chief illustrated papers are on "Dublin City," "Hunting the Rocky Mountain Goat," and the "Battle of Fort Donelson." W. P. A.

Mr. F. L. Pope has, in the November number of the *Electrical Engineer*, a brief synopsis of the Bell-Drawbaugh controversy. The above is of special value because, being written since the evidence on both sides has been submitted, the writer is able to form an unbiassed estimate of the relative claims of the litigants.

A paper entitled "The Construction of Lines for Electric Circuits," by Mr. F. H. Lockwood, is commenced in this number. It bids fair to be of very great interest to all parties interested in this subject. P.



W. H. Shockley, '75, superintendent of the Mount Diable Mine, Candelaria, Nevada. At this mine, it was recently necessary to sink an incline from the main shaft. Surveys made by the superintendent enabled it to be driven from six different places at once, and to be completed with errors of less than an inch.

Winthrop Alexander, '83, with Aspinwall & Lincoln, civil engineers, Boston.

Herbert T. Bardwell, '83, with Holyoke Water Power Company, Holyoke, Mass.

George H. Bryant, '83, with "The Proprietors of Locks and Canals on Merrimack River."

Harvey S. Chase, class secretary of '83, in the Manchester Mills, Manchester, N. H.

Frank E. Davis, '83, employed by the government in the Ordnance Department, assistant to Dr. W. E. Woodbridge, the inventor of a process for making steel wire-wound guns.

George J. Foran, '83, with Deane Steam Pump Company, Boston.

William B. Fuller, '83, assistant travelling engineer on railroad between St. Paul and Helena, and constructing engineer of water works at Bismarck, Dakota.

Horace B. Gale, '83, with the New England Weston Electric Light Company, Boston.

The Boston *Transcript* does not appreciate the efforts of Mansfield, '82, to improve the English language, as appears from the following: "The latest new word is 'motorneer,' coined by George W. Mansfield, an assistant of Leo Daft. Mr. Mansfield first used the word in 1883, during the trial of a Daft electric locomotive. But 'motorneer' is simply unendurable, though it has got into use, and its employment by writers is spreading fast as an equivalent for engineer."

Department Notes.

On the afternoon of Nov. 19, the Senior Mechanicals visited the boiler shop of Messrs. E. Hodge & Co., at East Boston. They were received with great courtesy by Mr. Hodge, who carefully explained the work in progress, and also started up several machines not in use at the moment in order that their operation might be understood. Several large boilers were seen in the process of construction, including a pair for the steamer "City of Cambridge."

After inspecting the work at this establishment, the party proceeded to the Atlantic Works, where Mr. Boyd, the superintendent, kindly explained what was being done upon boilers, both upon new work and as repairs. Here were seen the four boilers of the "City of Columbus," which, after resting for several months at the bottom of the sea off Gay Head, have been raised and brought here, to be again put into serviceable condition.

The second-year chemists and miners are now generally engaged in quantitative work again.

One of the students in the analytical laboratory has made a proof analysis and taken his degree of K. K. K.

The course of lectures on Chemical Manipulation has been concluded, to the disappointment of many second-year chemists.

On account of delay in the publication of Porter's "Richards Indicator," the third-year mechanicals were obliged to postpone this subject and begin thermo dynamics.

The second-year civils made a recent trip to Bunker Hill Monument.

"Next gentleman, conductor."

The monument was found to be the same height as last year.

Prof. Wing's announcement that volumetric analysis is *the* analysis of the future has a depressing effect upon those second-year chemists who find weighing to the ten thousandth of a grain easier than pouring to the tenth of a drop.

Work in the carpenter and forge shops is done from papyrographed drawings. Quite an improvement — for papyrographs.

In the analytical laboratory, the clock is kept fifteen minutes fast, and the gas turned off promptly at 4.30 or earlier; and even then it requires the personal efforts of one of the assistants to get some of the too zealous (?) chemists out of the laboratory.

The diversity of the methods employed in tests upon the efficiency and economy of steam-boilers having been brought to the notice of the American Society of Mechanical Engineers, a committee was appointed to investigate the matter. This committee has reported to the society a "Standard Method of Steam-Boiler Trials," which is published in the *Boston Journal of Commerce*, beginning Nov. 15.

The mentions on the architects' drawings which were on exhibition last week were as follows: —

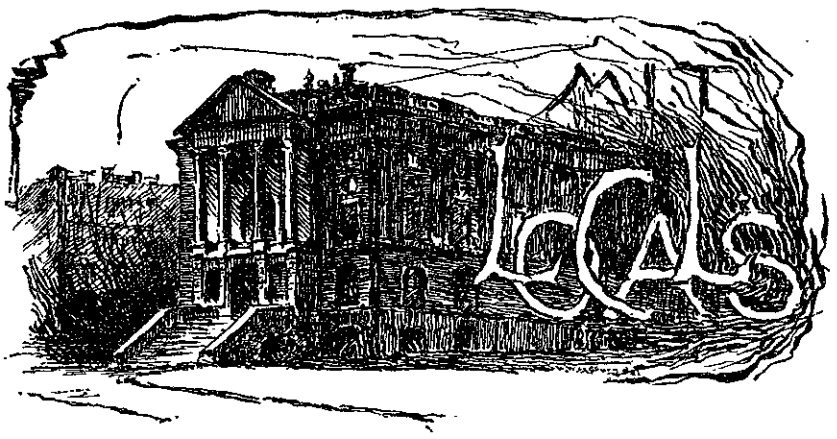
Design for a small museum: 1st, E. B. Homer; 2d, R. E. Schmidt; 3d, L. Green.

Design for a railroad station: 1st, L Green; 2d, R. E. Schmidt; 3d, W. G. Lawrence; 4th, E B. Homer.

Design for a lamp-post: 1st, J. S. Atkinson; 2d, E. B. Homer; 3d, R. E. Schmidt.

Drawing of a Boston house: 1st, F. G. Krucker; 2d, W. L. Park; 3d, F. A. Kendall; 4th, T. A. Fox.

The architects handed in their two-months' work before Thanksgiving, and, for a day or two, the drawings remained on exhibition. Mr. Arthur Rotch, Mr. W. P. P. Longfellow and Prof. Clark were the jury, and Mr. Rotch made a few criticisms upon the work. Among the drawings were those which are to go to the New Orleans Exhibition Though none of them are without interest, some surprise has been felt at the selection, as the best work done in the department is scarcely represented by them as a whole. To some it may be a consolation, though a poor one, that it is really better that it be shown how poor work as well as how good work the architects here can do.



A Parody.

It was a woful catenary.
On the board to be worked through,
That crushed my hopes so visionary, —
Honor, Passed, and Credit too. FF.

The new catalogue will be ready next week.

It's a long way to the shops, — cold and windy.

About time for the boards on the front steps of Rogers Building.

Mr. John Duff, '81, is acting temporarily as assistant in the Freshman laboratory.

Mr. Patch, instructor in the forge shop, adds another to our list of recently married instructors.

The winter meeting of the Athletic Club will probably be held in the gymnasium, Saturday, Dec. 20.

The second-year class in German will soon have completed their *interesting* study of "Der Esel und Der Wolf"

Part of the papyrograph notes on Applied Mechanics have been printed, and kindly presented to the Juniors by Prof. Lanza.

Christmas will, this year, fall on a Thursday. A petition to the Faculty for the Friday and Saturday following is now in order.

Glee Club rehearsals are held Mondays and Wednesdays, from half past four till quarter of six; orchestra rehearsals, Fridays, same hours.

The class of '88 has elected the following officers: President, Donald M. Blair; vice-president, George C. Dempsey; secretary, George E. Claflin; assistant secretary, H. O. Binney; treasurer, Arthur H. Chester; sergeant-at-arms, Russell M. Clement.

Judging from the attendance at the theatre last week, scientific students of the Institute show great interest in Grecian mythology.

Many will learn with surprise, from the report of the torchlight committee, how much "head" is required for successful playing on a bass drum.

Mr. F. W. Smith, whose departure from the Institute is much regretted by the professors of the department, has been succeeded by Mr. Peter Burns.

A party from the class of '87 attended a performance of *Orpheus and Eurydice* last week; so did the 2 G Society, and, in fact, nearly every one else at the Institute.

The popular Mr. Bunce, '84, called around the other day to bid us farewell before departing for the wilds of Arizona. The report that he was to be the assistant rector of the chapel is incorrect.

The conduct of the second-year class during history lectures has not been, by any means, that of the highest order. It is to be hoped the recent measures of Prof. Atkinson will produce a tranquillizing effect.

Prof. Wing, of the analytical laboratory, will take an extended vacation from his duties, beginning about the first of next month. His place will be filled by Asst. Prof. Pope, who will also divide the work with Prof. Wing after the latter's return.

The auction of periodicals belonging to THE TECH was very successful in a financial way Although a novice at the business, President McKim acted as auctioneer in a very efficient manner, and obtained good bids for his wares. Twenty-five dollars was netted.

Mr. '86–8, who, on a recent trip to Williamstown with the foot-ball team, skipped off without paying his hotel bill, thinking he was doing something smart, little thought of the discredit he reflected upon the Institute. We are glad, however, to hear that we have men who honored the good name of the Institute enough to write back and settle the bill.

Prof. Nichols calls $H_6 O_6 S$ "straight" sulphuric acid, because it contains the *maximum* amount of water. Is n't that rather contrary to colloquial usage?

Mr. Edmund Gosse, the distinguished poet, and professor of poetry at Oxford, is to deliver a course of twelve lectures on the English poets before the Lowell Institute. After finishing his course of lectures before the Institute, Mr. Gosse will deliver them before Johns Hopkins University.

The sudden appearance of a student armed with bottle and bellows has been a frequent phenomenon at many doorways of late. He has been very popular with the Freshmen, but professors have eyed him with suspicion. He was, in reality, only a fourth-year chemist in search of carbonic acid.

The committee from the Glee Club for the purpose of arranging the associate membership is composed of the following: E. B. Homer, '85; A. E. Leach, '86; E. A. Haskell, '87; H. M. Steele, '88; J. G. Howard, from the Club at large. The committee will receive the names of those who wish to join the association.

The first rehearsal of the orchestra in their new quarters in the Kidder Building took place on the 21st ult. The members are disappointed in the amount of time allowed them, one hour a week being about sufficient to cover the time required to get enough instruments together for a single rehearsal.

During the summer, a skating rink was built on the corner of Shawmut Avenue and Ruggles Street, and is now open. It is large, and profusely decorated, and every convenience is provided for the use of patrons. The music is good, and every inducement is offered by which one is assured a pleasant evening in roller skating.

The very successful series of afternoon parties held in the gym. last year are, we understand, to be repeated. These parties have been most enjoyable events in the social life of THE TECH, and their repetition will be learned with pleasure by many. The managers propose to give the first party Saturday, Dec. 13. The affair will undoubtedly prove a success.

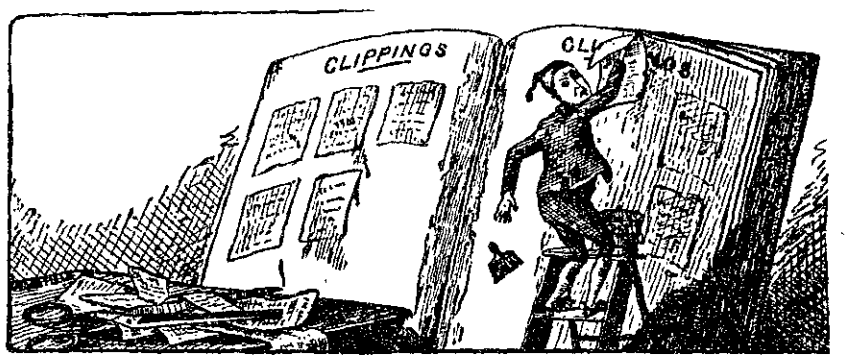
The College World.

HARVARD. — The following notice has been issued to students: "The Committee on Athletics having become convinced that the game of foot-ball as at present played by college teams is brutal, demoralizing to players and to spectators, and extremely dangerous, propose to request the Faculty to prohibit the game after the close of the present season." . . . This notice was signed by the Faculty Committee on Athletics, and, to say the least, somewhat startled the students. The action of the committee is awaited with interest. — The University Catalogue has been issued. It states the number of students to be: College students, 1,006; Divinity School, 26; Law School, 153; Scientific School, 28; Medical School, 249; Dental School, 35; Veterinary School, 21; Bussey Institution, 6; graduate students, 70. Total, 1,586. The instructors, officers, and others connected with the government of the University number 246. — An extraordinary example of vandalism recently occurred. One morning, not long ago, the newly erected statue of John Harvard was found to have been covered with a coat of black paint, and the Appleton Chapel was adorned with the inscription '88 in letters four feet long.

CORNELL. — An athletic committee, consisting of directors of the Navy, the Athletic and Base-Ball Associations, has been formed to promote general athletic interests. — The class of '88 has passed resolutions pledging themselves not to challenge the future class of '89 to a cane-rush.

COLUMBIA. — A cup is to be offered for an inter-class base-ball tournament next spring. — '88 will not have as good a crew as did '87 last year. — Quantitative analysis has been dropped from the course in mining engineering.

YALE. — Five of the foot-ball eleven, including Terry and Richards, graduate this year. — The average age of the Freshman class is nineteen years and one month. Fifteen per cent of them use tobacco. — The publication of *Quip* has been discontinued, on account of lack of support.



Church Hymns.

AS SUNG.

"Waw-kaw, swaw, daw aw waw,
Thaw saw, thaw law aw waw,
Waw-kaw, taw, thaw raw-vaw-vaw braw
Aw thaw raw-jaw-saw aw."

AS WRITTEN.

"Welcome, sweet day of rest,
That saw the Lord arise,
Welcome to this reviving breast,
And these rejoicing eyes." *Argonaut.*

They met on the steamer in mid-ocean.

First Old Chap. — "Are you going across?"

Second Old Chap. — "Yes, I am. Are you?"

Shaving Materials — A Piece of Soft Pine and a Plane. — *Puck.*

It was a graduate of the Yale foot-ball department who translated *de mortuis nil nisi bonum* "to the dead there are nothing but bones." — *Life.*

Instructor to Freshman. — "Mr. Blank, are n't you out of your seat?" "No, sir; but some one is in mine, so I am not in it." — *Acta Columbiana.*

Scene — Thanksgiving dinner — *Fond mother.* "Have you had enough, my dear?"

Enfant terrible (dolefully). "My stomach don't ache yet."

Ethel. — "O mamma, I've got such a pain!"

Mother. — "Where, dear?"

Ethel (*a refined child*). — "In my sash, mamma!" — *Judy.*

The wages of a gang of Italian laborers in New York were cut down ten cents a day, but the men were too wise to strike. Instead, they all cut an inch off the end of their shovels, in order to lift less dirt and to make the work last longer.



AFTER THANKSGIVING.

A student at Union College was ill a short time ago, and was left to the care of two or three of his chums. The attending physician was quite shocked upon one of his morning visits to find his patient stretched out, covered with a sheet, and silver quarters placed on his eyes. On his bed by his side lay a coffin, marked "Engaged." A closer inspection showed that he was not dead but asleep, and the nurses were eating his breakfast in the next room. — *Cornell Sun.*

She Pulled it Herself.

"Will you pull the bell?" she asked of a man across the aisle as the car reached the corner.

"No, madam," he answered, with a bow; "but I will be most happy to pull the strap which rings the bell."

"Ah! but never mind. The strap is connected with two bells, and you might stop the wrong end of the car."

And the look she turned on him was full of triumph, veneered with cayenne pepper. — *Ex.*

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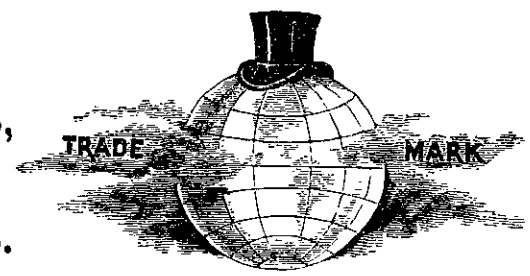
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Besides the above distinctly professional courses, the Institute offers scientific courses of a less technical character, designed to give students a preparation for business callings. A four years' course in biology, chemistry, and physics has been established, as preparatory to the professional study of medicine.

Modern languages are taught so far as is needed for the ready and accurate reading of scientific works and periodicals, and may be further pursued as a means of general training.

The constitutional and political history of England and the United States, political economy, and international law are taught, in a measure, to the students of all regular courses.

Applicants for admission to the Institute are examined in English grammar, geography, French, arithmetic, algebra, and geometry. A fuller statement of the requirements for admission will be found in the catalogue, which will be sent without charge on application.

A clear admission paper from any college of recognized character will be accepted as evidence of preparation, in place of an examination.

Graduates of colleges conferring degrees are presumed to have the necessary qualifications for entering the third-year class in any of the regular courses of the Institute, and will be so admitted provisionally, on the presentation of their diplomas.

The feature of instruction which has been most largely developed in the school is laboratory training, shop-work and field practice, to supplement, to illustrate, and to emphasize the instruction of the recitation and lecture room.

Surveying instruments are provided for field work in civil and topographical engineering. Extensive shops have been fitted up for the use of both hand and machine tools; and a laboratory of steam engineering has been established as a part of the instruction in mechanical engineering. Several steam boilers and steam engines of various types are available for experiments and tests. The department of mining engineering and metallurgy has the use of laboratories in which the milling and smelting of lead, copper, silver, and other ores, in economic quantities, are regularly performed by the students themselves. The classes in architecture supplement the work of the drawing and designing rooms by the examination of structures completed or in course of erection, and by practical experiment in the laboratory of applied mechanics, testing the strength of materials and working out problems in construction. The Kidder Chemical Laboratories, just completed, contain desks for four hundred and twenty-six students, and afford the best modern facilities for the study of general, analytical, and organic chemistry. The Rogers Physical Laboratory has been greatly extended in every department during the past year, especially in respect to facilities for instruction and research in electrical science.

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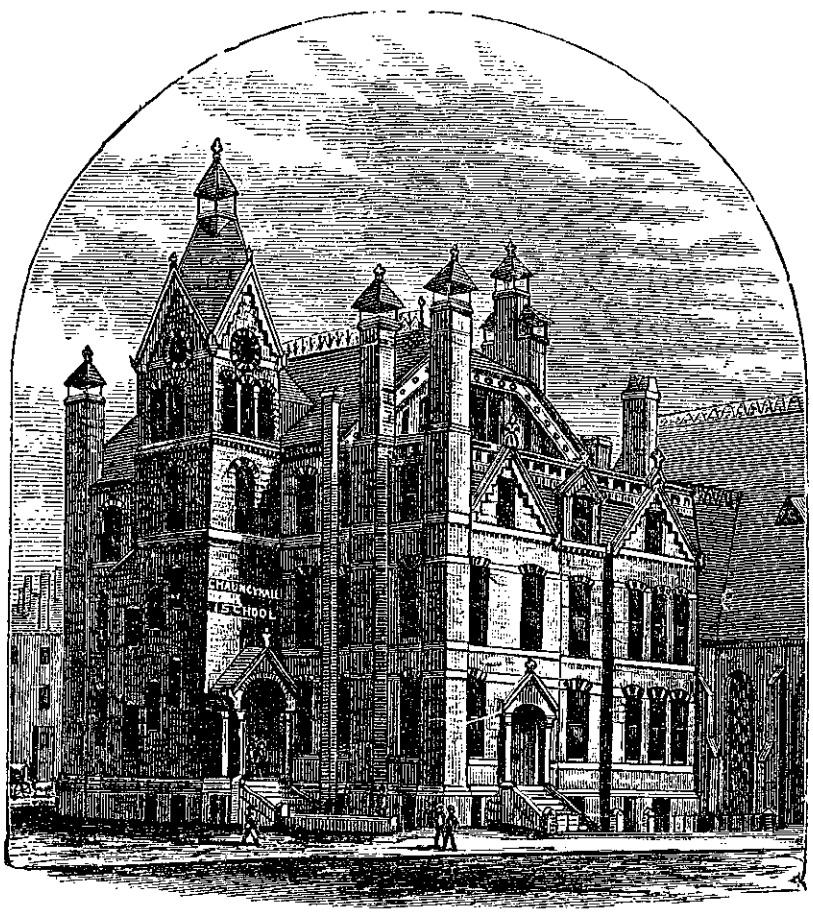
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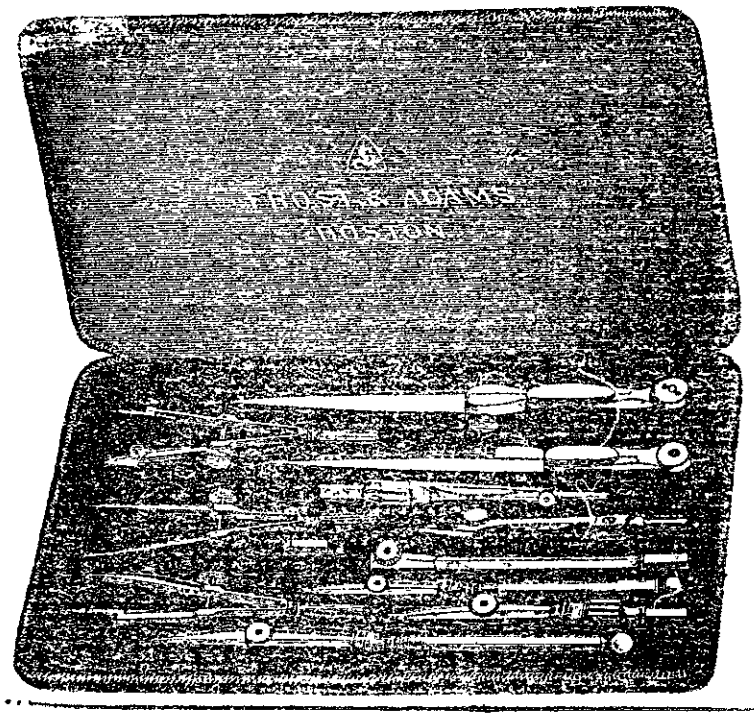
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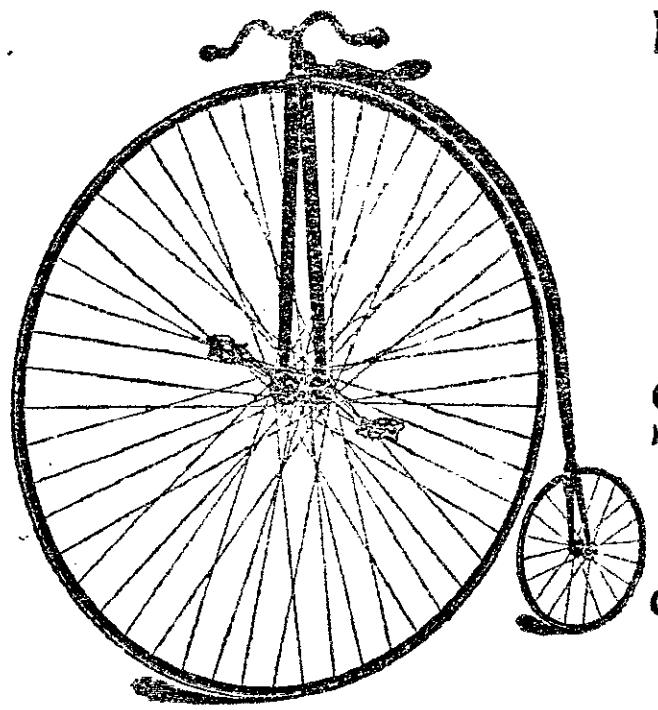
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